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TWELFTH ANNUAL REPORT

OF

THE COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

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CONTENTS.

COMMISSIONERS

OF THE

MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

N. M. DYER. *Chairman*,
REAR ADMIRAL, U. S. N. (RETIRED).

ROBERT B. DIXON, M.D.

HON. JOHN READ.

F. STANHOPE HILL. *Secretary*.

Commonwealth of Massachusetts.

MASSACHUSETTS NAUTICAL TRAINING SCHOOL.

To the Honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled.

The Commissioners of the Massachusetts Nautical Training School have the honor to submit their report of the operations of the school for the year 1903.

The Work of the Year.

Notwithstanding the fact that the commissioners have been confronted with a serious difficulty in obtaining properly trained officers as instructors in the Nautical Training School, since the withdrawal by the Navy Department of the officers on the active list of the navy, heretofore detailed for such duty, the efficiency of the school has been satisfactorily maintained during the past year, and the roster of the school has been kept up to the full number of cadets that can be cared for properly.

The average number of cadets in the school from Jan. 1, 1903, to Jan. 1, 1904, has been 105. Of these, the engineer class has predominated, in about the ratio of 45 to 60.

Eighteen cadets graduated in April, 10 in the seamanship class and 8 in the engineering class; and in October the graduating class numbered 13, — 7 in the seamanship class and 6 in the engineer class, making a total for the year of 14 engineers and 17 seamen. Practically all of these graduates obtained employment at sea very shortly after their graduation, as quartermasters, electricians, oilers, etc.

The Summer Cruise.

After completing necessary repairs, the "Enterprise" sailed from Boston on her usual summer cruise June 27, with a complement of 103 cadets on board. The itinerary included visits to Provincetown, Mass.; Horta, Fayal; Lisbon, Portugal; Gibraltar; Tangier, Morocco; and the island of Madeira; returning to Provincetown September 30, and to Boston October 1.

During these three months the cadets were kept in constant practice of the duties incident to their profession, as is well shown by the following extract from the report of the efficient superintendent, Commander William F. Low, U. S. Navy, to the commissioners: —

Itinerary.

Left Boston,	June 27;	arrived at Provincetown,	June 27.
" Provincetown,	July 2;	" Horta, Fayal,	July 17.
" Horta, Fayal,	July 24;	" Lisbon, Portugal,	Aug. 1.
" Lisbon, Portugal,	Aug. 11;	" Gibraltar,	Aug. 14.
" Gibraltar,	Aug. 19;	" Tangier, Morocco,	Aug. 19.
" Tangier, Morocco,	Aug. 21;	" Funchal, Madeira,	Aug. 25.
" Funchal, Madeira,	Sept. 1;	" Provincetown,	Sept. 26.
" Provincetown,	Sept. 30;	" Marblehead,	Sept 30.
" Marblehead,	Oct. 1;	" Boston,	Oct. 1.

During the cruise the time of the cadets was as well taken up in exercise, both general and special, as the weather would permit. In port every opportunity was taken for boat exercise.

The stations of the cadets were frequently changed, to give them the chance to familiarize themselves with the different parts of the ship and the lead of its gear.

General exercise was held in the afternoon; the forenoons, after inspection and setting up drill, were usually given to instruction in marlinspike seamanship, lead of gear, heaving the lead, etc., or else exercise by watches. Particular attention was paid to instruction in navigation.

The health of the cadets was generally good. No water for drinking or cooking purposes except that distilled on board has been used. The behavior of the cadets on shore, so far as I know, was excellent; and, in fact, our consular representative at Fayal informed me that it would be his pleasure to report to the State department that in his many years' experience at that port

he had never seen a lot of boys landing from a ship conduct themselves in so exemplary a manner.

During the cruise only sundown liberty was given the cadets. There was not a single case at any port of a cadet returning from liberty under the influence of liquor.

The coal consumption for the cruise was 195 tons, 1,670 pounds, as follows: —

	Tons.	Pounds.
For steaming,	109	1,170
For distilling and auxiliary machinery,	81	910
For starting and banking fires,	3	1,070
For steam launch,	1	760
Total,	195	1,670

The new evaporator and distiller installed last spring have given excellent results, and have worked continuously in a satisfactory manner.

The cadets were instructed as follows: —

Seamanship.

Section A. — Setting up rigging; reeving off gear; bending sail; sail making; splicing; steering; heaving lead and log; under oars and sails; duties as coxswains of boats; captains and second captains of tops; quartermasters and officers of the deck; working ship; heaving to; bracing; making and taking in sail; running lines; mooring and unmooring; securing to wharf; handling yards; shifting and reefing sail; sculling; heaving to under storm sail, and the use of oil.

Section C. — Knotting, splicing and sail making; setting up rigging; bending and unbending sail; reeving off gear; in boats under oars and sails; steering; working ship; handling yards; reefing; heaving lead and log; shifting sail; lookouts; securing boats for sea; sculling.

Section E. — Knotting; splicing and sail making; steering; heaving lead and log; lookouts; in boats under oars and sail; in parts of ship; sculling.

Also second part of Section B and Sections D and F (engineer's department) in knotting; short, cut and eye splice, and use of tackle in parts of ship; in boats under oars and sail, and as lookouts.

Navigation.

The two senior classes. Dead reckoning; course and distance by middle latitude and Mercator's sailing; taking departure; setting courses; correcting courses; taking bearings; plotting posi-

tion; latitude by meridian; circum-meridian and ex-meridian altitudes of sun and other heavenly bodies and by pole star; time sights and longitude by sun or other heavenly body; Sumner's method by projection and calculation; observing azimuth and finding compass error; finding chronometer errors and rates; care and handling of chronometers; comparing chronometers; finding time of high water at places; use of charts of all kinds; sailing directions, tide tables, light lists and other aids to navigation; use and adjustments of instruments; danger angle; how to identify the stars; compensating compasses and barometers; practical work with artificial horizon on shore.

The third class was also given the same instruction as the two senior classes, but preference was always given the seniors in the more advanced practical work.

The new cadets were taught boxing the compass; taking departure; correcting courses; dead reckoning; elements of nautical astronomy; use of the sextant; observing the altitudes of heavenly bodies; finding latitude by meridian altitude, and how to identify the principal stars used in navigation.

Each watch of the three senior classes found the position every alternate day by dead reckoning and observation of the sun, and worked observations of the stars morning and evening when the weather was favorable. The new cadets worked dead reckoning every day on the passage home, and found the latitude by meridian altitude on alternate days. They were given almost daily practice in the use of the sextant in observing altitudes of the sun and stars.

Engineering.

Section B, First Part. — In steam and water piping; firing; the care and repair of pumps; care of engines; oiling; packing of joints; adjusting valves; and in the general duties required in the engine room.

Section B, Second Part. — In firing; water tending; running electric light engine and dynamo; care of pumps and their repair; distilling; and general fire-room duties.

Sections D and F. — Coal passing; firing; cleaning boilers; instruction in the lead and use of pipes, check and other valves, and the names and uses of boiler attachments.

Medical Department.

Course of instruction in first aid to injured, including how to act in presence of emergency; the use of disinfectants; symptoms and treatment of burns, bruises, hemorrhage, wounds, sprains, fractures, dislocations, foreign bodies in eye, ear and throat,

unconsciousness, fainting, shocks, compression, sunstroke, starving, drunkenness, convulsions, smothering by gas, hanging, drowning, poison, dog, snake or insect bites and poison ivy; making of dressings and poultices.

The classified expenditures on cruise are indicated as follows: —

Pay roll,		$5,924 40
Ration bills,		330 00
Commissary,		1,145 85
Coal,		800 51
Water,		24 35
Contingent,		173 37
Surgeon's department,		27 39
Equipment,		16 95
Pilotage,		26 85
		$8,469 67
Less coal on hand on arrival at Marblehead,	$397 68	
commissary stores on hand on arrival at Marblehead,	554 59	
stores condemned and lost,	77 94	
		1,030 21
Net cost of cruise,		$7,439 46

Personnel.

The commission has suffered a very severe loss during the past year in the death of Rear Admiral George Eugene Belknap, U. S. N., LL.D. (retired), which occurred at Key West, Fla., on April 7, 1903. Admiral Belknap was appointed on this commission Nov. 3, 1894, and was elected chairman on June 13, 1895. During the eight consecutive years of his service in that capacity he devoted his entire time to the duties of the office, and under his supervision the school has reached its present high state of efficiency.

April 22, 1903, Rear Admiral N. M. Dyer, U. S. N. (retired), was appointed a commissioner, *vice* Rear Admiral George E. Belknap, deceased.

April 23, 1903, Rear Admiral N. M. Dyer, having qualified, was elected as chairman of the commission.

July 1, 1903, Rear Admiral N. M. Dyer was reappointed as a commissioner for three years.

The changes in the officers and instructors have been as follows: —

On Oct. 23, 1902, Commander William F. Low, U. S. N. (retired), was ordered to the command of the "Enterprise," relieving Commander E. D. Taussig, U. S. N.

On March 10, 1903, Ensign Frank B. Case, U. S. N., reported for duty as watch officer and instructor.

On Dec. 12, 1903, Ensign Frank B. Case, U. S. N., was detached.

On Jan. 1, 1904, Boatswain Patrick H. Burns, U. S. N. (retired), reported for duty as watch officer and instructor, and was appointed by the Board as acting ensign.

Repairs to the "Enterprise."

Under the terms of the agreement by which the U. S. S. "Enterprise" was loaned to the Commonwealth of Massachusetts for the purpose of a nautical training school, the commissioners of the school are under an obligation to hold the said ship in trust for the United States government, and to keep her in good order, it being understood that the repairs to the ship shall be only such as the reasonable use and wear thereof for the purpose of said nautical training school may impose. The United States government expended $20,000 in repairing the "Enterprise" in 1892, at the time she was turned over to the Commonwealth.

Finding that the "Enterprise" required extensive repairs before making another summer cruise, the commissioners obtained authority from the Secretary of the Navy last November for an official survey of the hull, boilers and machinery of the ship, to be made under the direction of the commandant of the Boston Navy Yard. The report of these surveys indicated the necessity for extensive repairs to the hull and to the machinery, boilers, etc., the time required for the work being sixty days.

Proposals, based upon these reports, were invited for the indicated repairs from four private ship-building firms, *i.e.*, the Fore River Ship and Engine Company, Quincy, the Atlantic Works, William McKie and John M. Brooks. The commissioners have prepared a bill asking the Legis-

lature to provide by special appropriation for these needed repairs, and pending its passage no further action has been taken upon the above proposals.

The Winter Term.

By the courtesy of the bath commissioners of the city of Boston, the "Enterprise" is moored at the North End Park, Boston, free of expense to the Commonwealth, where she will remain during the winter term.

Instruction is now being given on board to 105 cadets, which is the total number that the ship will properly accommodate.

Should any members of the Legislature desire to obtain further knowledge of the operations of the school by personal observation, the commissioners and the superintendent would be gratified to have them visit the "Enterprise" at the above-mentioned wharf on any day excepting Saturday or Sunday, when the cadets are absent on home leave.

Information regarding Graduates of the School.

The scarcity of competent officers available for employment on board the vessels of our merchant marine has of late been painfully apparent, and is a source of inconvenience to those interested in the mercantile marine. Masters of sailing vessels have at times found it difficult to obtain desirable men to act as first and second officers, and their efforts have been successful only after much trouble and delay. The importance of nautical training schools "for the instruction of youths in navigation and seamanship, and all matters pertaining to the proper construction, equipment and sailing of vessels," is not likely, therefore, to be overestimated. As the vessels comprising our merchant marine continue to increase in number and size from year to year, we must have competent men to command and man them.

In returning the cadets' "employment blanks," sent out by the commissioners, many parents in different parts of the State expressed their confidence in the excellent opportunities afforded by the school to young men with seafaring

instincts, and the good work it is doing, as evidenced by the improvement and progress made by their sons while in the school, and in the readiness with which they have obtained employment after graduating.

The value of the instruction received by young men in this school is perhaps best shown by the fact that among the 327 graduates fully 285 have become masters, first, second and third officers, quartermasters, engineers and machinists. These graduates are now serving on board different coastwise and transatlantic steamers; also on board steamers and sailing vessels in the West Indian, South American and Pacific trade. Four graduates have received appointments as commissioned officers, while others are petty officers in the U. S. revenue cutter service. Two cadets who graduated with high marks, Frederick W. Jones of Roxbury and A. Russell Cushing of Dorchester, have served as petty officers and instructors on board the "Enterprise," and Mr. Cushing is still employed in that capacity. The U. S. navy collier service, the army transport service, and the new vessels of the navy also continue to give employment to many of the more competent graduates.

The number of graduates who are now serving as first or second officers on board large and important steamers is not only evidence of the good progress being made by them in their chosen profession, but reflects credit upon the character of the education and discipline received in the school.

Two cadets are now employed as second officers on fast steamers of the Metropolitan line, one as second officer on board a steamer of the Boston & Philadelphia S. S. Company, and one as first officer in the employ of the Merchants and Miners' Transportation Company. Two graduates are serving as third mates in the U. S. navy collier service, one on board the "Ajax" and the other on the "Caesar."

One cadet, who graduated in October, 1901, served for some months on board the S. S. "Lyra," and is at present third officer of the "Roanoke," plying between Seattle and Nome, Alaska. Last spring he was granted an unlimited license as second officer.

A recent graduate shipped as able seaman on the big

ennebec" on a voyage from Pensacola, Fla., to Rio eiro, and thence to Australia.

ne graduate, who is employed as first officer on one of large coastwise steamers, has been granted a captain's nse for all steamers in all waters. He also has a first- pilot's license for Boston, Providence, Philadelphia, folk, Newport News, Baltimore, Savannah, and from Hampshire to Georgia. In all probability this young will be given command of one of the large steamers in domestic trade.

n account of the increased trade with Alaska, Hawaii eastern ports, shipping on the Pacific has experienced a rous growth, and many cadets entered that trade after ing the school. A letter received by the commissioners a graduate now employed as fourth officer on board U. S. army transport "Thomas" states that gradu- are engaged in the Pacific trade as follows: second er S. S. "Nevadan," American-Hawaiian S. S. Com- ; second officer S. S. "Minnewaska;" second officer S. "Olympia," Northern Pacific S. S. Company; first tant engineer U. S. army transport "Burnside;" oiler oard the army transport "Thomas."

nother communication, received recently from a gradu- serving as assistant engineer on the U. S. revenue cutter mer "Perry," Astoria, Ore., calls attention to others loyed in the Pacific as third lieutenant, revenue cutter ar:" first assistant engineer S. S. "Tremont," Boston mship Company; second officer S. S. "Arizonan," rican-Hawaiian S. S. Company; second officer S. S. hio:" master S. S. "Discovery;" and in the engine artment naval collier "Nero" at Panama.

here probably never was a time when there were so y opportunities for young men entering upon a seafaring er. It is true that the shipping engaged in deep-sea e is of very insignificant proportions, — American els carrying only 9.1 per cent. of our exports and orts last year, — and the opportunities in that branch of merchant marine are, therefore, exceedingly limited; our domestic tonnage has had a wonderful growth in nt years, and is larger than that of any other nation.

According to the report of the U. S. Commissioner of Navigation, our total documented tonnage on June 30, 1903, was larger than ever before in the history of the country. It comprised 24,425 vessels of 6,087,345 gross tons, divided in the different trades as follows: domestic trade, 5,141,037 tons; foreign trade, 879,264 tons; fisheries, 67,044 tons. This is an increase of 152 vessels of 289,443 tons over the previous year.

In the year 1861, when our foreign shipping reached the height of its prosperity, and when our tonnage was greater than that of Great Britain and nearly equal to that of the British Empire, our total documented tonnage was 5,539,813 gross tons.

During the year there have been launched from American shipyards four large transatlantic steamers, the "Finland," "Maine," "Massachusetts" and "Mississippi;" and, while ocean-going vessels to the extent of about 100,000 tons have been documented during the past two years, the foreign tonnage remains about the same, for the reason that this increase has been offset by the loss of schooners and the gradual diminution of the number of old-time square-rigged wooden vessels. The total number of square-rigged American sail vessels — ships, barks, barkentines, brigs and brigantines — on June 30, 1903, was 350, aggregating 393,713 gross tons.

Many large and swift steamers have been placed in commission on the Pacific coast within the last twelve months, and others will be added to this fleet the coming year. The two largest of these steamers are the "Minnesota" and "Dakota," now nearing completion at New London, Conn., for the Great Northern Steamship Company. These two steamers, of 21,000 tons, are the largest ever built in the United States.

Summary.

So far as known by the commissioners, the cadets have been employed since leaving the school as follows: —

Seamanship Class. — Acting ensigns, 3; masters, 5; first officers, 10; second officers, 23; third officers, 5; fourth officers, 2; chief quartermasters, 3; quartermasters,

65; cadets and seamen, 50; chief yeomen, 4; third lieutenants U. S. revenue cutter service, 3; cadet revenue cutter service, 1; petty officers, revenue cutter service, 4.

Engineer Class. — Chief engineers, 5; first assistant engineers, 6; second assistant engineers, 15; third assistant engineers, 13; fourth assistant engineers, 2; engineers and assistant engineers, 38; engineer cadets and oilers, 44; firemen, 6; machinists, 35; electricians U. S. Navy, 5; warrant machinists U. S. Navy, 3; chief electrician, 1; electricians, 41; total engineer and seamanship class, 392.

Class of Vessels. — The cadets have been engaged in the following branches of service: transatlantic steamers, 82; coastwise steamers, 79; Pacific coast steamers, 12; "tramp" steamers and towboats, 17; steam yachts, 20; sailing vessels, 32; U. S. transports, 16; U. S. revenue cutter steamers, 12; U. S. Coast Survey steamers, 8; U. S. light-house steamers, 5; U. S. naval vessels, 64; U. S. naval colliers, 18; pilot boats, 5; total, 370.

Graduating Classes.

Spring Graduating Class, April, 1903.

Bostwick, H. M.,	Seaman cadet,	Northbridge.
Baylies, E. W.,	" "	New Bedford
Clapp, L. A.,	" "	Brockton.
Chase, A. B., Jr.,	" "	New Bedford
Chandler, F. C.,	" "	Brookline.
Greeley, M. H.,	Engineer "	South Boston.
Hogan, E. J.,	" "	South Boston.
Kane, N. J.,	Seaman "	Whitman.
Liverpool, H. J.,	Engineer "	Boston.
Lemp, H. J. G.,	" "	Lynn.
McGarry, J. S.,	" "	Shrewsbury.
O'Connell, B.,	Seaman "	Peabody.
Powers, E. E.,	Engineer "	Cambridgeport.
Taisey, P. C.,	" "	Lowell.
Woodbury, M.,	Seaman "	Townsend.
Webber, C. W.,	" "	Cambridge.
Wells, R. A.,	" "	Greenfield.
Whitman, R. W.,	Engineer "	Roxbury.

Autumn Graduating Class, October, 1903

Cunningham, S.,	Seaman cadet,	Cambridge.
de L'Etoile, A. J.,	" "	Boston.
Garland, F. S.,	Engineer "	Randolph.

Hudson, G H.,	Engineer cadet,	Somerville.
Komenda, R.,	" "	Somerville.
Lowe, H. A.,	Seaman "	Roxbury.
Mercer, E. A.,	Engineer "	Cambridge.
O'Neil, T. J.,	" "	Worcester.
Powers, R. B.,	Seaman "	Brockton.
Rideout, H. C.,	" "	Concord Junction.
Rice, L. P.,	Engineer "	Quincy.
Thompson, H. A.,	Seaman "	South Framingham.
Woodbury, V.,	" "	Townsend.

Class to graduate April, 1904.

Branagan, Charles,	Engineer cadet,	Worcester.
Blunt, A. C.,	" "	Charlestown.
Bessom, J. F., Jr.,	" "	Lynn.
Brown, C. R.,	" "	Dorchester.
Bowe, W. E.,	Seaman "	Roxbury.
Barnes, Cyrus,	" "	Malden.
Chick, M. T.,	Engineer "	Brookline.
Cullen, F. S.,	" "	Beverly.
Dunne, H. J.,	" "	Canton Junction.
Dunshee, G. A.,	Seaman "	Charlestown.
Iverson, A. J.,	" "	Beverly.
Johnson, L. T. W. C.,	Engineer "	Worcester.
Kinniery, H. J.,	" "	Worcester.
Marshall, P. M.,	" "	Newton.
Marshall, S. S.,	Seaman "	Newton.
McIntyre, C. L.,	Engineer "	Upton.
O'Connell, T. L.,	" "	Wakefield.
Parker, H. A.,	" "	Mattapan.
Stewart, William,	" "	Reading.
Stoddard, C. H.,	Seaman "	Worcester.
Sumner, B. M.,	" "	Dorchester.
Twombly, L. W.,	Engineer "	Jamaica Plain.
Thornton, W. J.,	Seaman "	Boston.
Welch, B. L.,	Engineer "	Lowell.
Williamson, J. F.,	" "	Brockton.
Waite, F. M.,	Seaman "	South Dartmouth.

Class to graduate October, 1904.

Bumpus, C. W.,	Engineer cadet,	Wakefield.
Blaisdell, L. T.,	" "	Carlisle.
Blake, S. M.,	" "	Westfield.
Blanchard, H. W.,	Seaman "	Roslindale.
Bigelow, E. R.,	" "	Bridgewater.
Coffin, Richard,	Engineer "	Nantucket.
Chadbourne, E. J.,	" "	Reading.
Driscoll, J. W.,	" "	Boston.
Danforth, W. A.,	" "	Plymouth.

Dyson, C. G.,	Engineer cadet,	North Billerica.
Fisk, C. C.,	" "	Winthrop.
Gammon, F. B.,	" "	Brockton.
Gosnay, T. F.,	" "	Wakefield.
Hill, C. A.,	" "	Melrose.
Hill, C. H., Jr.,	" "	Reading.
Holmes, L. F.,	Seaman "	Brockton.
Morgan, H. J.,	Engineer "	Wakefield.
Nolan, E. B.,	Seaman "	Somerville.
Roberts, E. C.,	" "	North Beverly.
Williams, E. W.,	Engineer "	Lynn.
Whippen, J. G.,	" "	Lynn.
Welden, G. F.,	Seaman "	Dorchester.
Young, W. E.,	" "	Charlestown.

Class to graduate April, 1905.

Ahern, J. J., Jr.,	Seaman cadet,	Cambridge.
Anthony, L. J.,	" "	Taunton.
Barrows, R. L.,	" "	Boston.
Bradley, R. F.,	" "	Westfield.
Cady, F. M.,	Engineer "	Lowell.
Chisholm, T. W.,	" "	North Billerica.
Clark, H. R.,	Seaman "	Middleborough.
Carver, W. R.,	" "	Brockton.
Doolittle, P. E.,	Engineer "	Greenfield.
Eldredge, A. S.,	Seaman "	Winthrop.
Gervais, A. A.,	Engineer "	Westborough.
Gridley, H. H.,	Seaman "	Dorchester.
Hallett, G. A.,	Engineer "	Somerville.
Haskell, B. L.,	" "	Gloucester.
Kinnaly, J. F. J.,	" "	South Boston.
Kelley, L. G.,	" "	Taunton.
Knowlton, A. L.,	" "	South Essex.
Lockhart, W. C.,	" "	Wakefield.
Morin, Eugene,	Seaman "	Hyde Park.
MacLaughlin, O. D.,	" "	Beverly Farms.
Noble, H. A.,	Engineer "	South Essex.
O'Brien, A. F.,	Seaman "	South Boston.
Pinkham, A. S.,	" "	Newton.
Reynolds, T. J.,	" "	Roxbury.
Shannon, H. V.,	" "	Melrose.
Slack, C. G.,	" "	Reading.
Tarr, C. F.,	Engineer "	Taunton.
Tolman, J. W.,	" "	Dorchester.
Williams, H. C.,	Seaman "	North Easton.

Class to graduate October, 1905.

Barry, P. C.,	Seaman cadet,	North Dighton.
Burdekin, R. W.,	Engineer "	South Framingham.

Carlton, F. G.,	Engineer cadet,		Maynard.
Crocker, J. A.,	Seaman "		Nahant.
Curtin, H. P.,	" "		Taunton.
Cannon, F. H.,	" "		Lynn.
Coleman, W. A.,	" "		Dorchester.
Clarke, F. R.,	Engineer "		Boston.
Hyde, C. E.,	" "		Westborough
Kneeland, W. E. L.,	" "		Worcester.
Maynard, H. W.,	Seaman "		Winthrop.
Miller, I. E.,	Engineer "		Marlborough.
Mullaly, C. C.,	Seaman "		Dorchester.
Moulton, L. A.,	Engineer "		East Bridgewater.
Newhall, W. L. F.,	" "		Lynnfield.
O'Brien, E. R.,	Seaman "		West Roxbury.
Reid, L. A.,	Engineer "		Taunton.
Schwartz, Benjamin,	" "		Boston.
Savory, F. T.,	" "		Lynn.
Swan, R. I.,	" "		Dorchester.
Sullivan, F. H.,	" "		Sandwich.
Slater, S. R.,	" "		Plymouth.
Sargent, Henry,	Seaman "		Worcester.
Whiton, A. E.,	Engineer "		Wakefield.
Woodward, C. A.,	" "		Rockland.
Walker, F. S.,	Seaman "		Roxbury.

Cadets admitted, graduated and honorably discharged, from 1893 to 1903, Inclusive.

	Admitted.			Graduated.			Honorably discharged.		
	Seamanship Class.	Engineer Class.	Total.	Seamanship Class.	Engineer Class.	Total.	Seamanship Class.	Engineer Class.	Total.
1893,	138	-	138	-	-	-	29	-	29
1894,	42	21	63	-	-	-	26	17	43
1895,	33	38	71	19	19	38	6	6	12
1896,	35	39	74	20	17	37	16	15	31
1897,	32	41	73	20	21	41	10	10	20
1898,	42	57	99	15	25	40	12	14	26
1899,	34	45	79	11	12	23	24	17	41
1900,	28	50	78	14	36	50	9	12	21
1901,	34	37	71	11	18	29	8	12	20
1902,	32	58	90	16	22	38	16	18	34
1903,	34	32	66	17	14	31	10	15	25
Total,	484	418	902	143	184	327	166	136	302

Employment of Graduates and Cadets honorably discharged from 1893 to 1903, Inclusive.

	Graduates' Employment.							Employment of Honorably Discharged Cadets.						
	At Sea.		On Shore.		Unknown.		Total.	At Sea.		On Shore.		Unknown.		Total.
	Seaman-ship Class.	Engineer Class.	Seaman-ship Class.	Engineer Class.	Seaman-ship Class.	Engineer Class.		Seaman-ship Class.	Engineer Class.	Seaman-ship Class.	Engineer Class.	Seaman-ship Class.	Engineer Class.	
1893, ...	-	-	-	-	-	-	-	-	-	-	-	29	-	29
1894, ...	-	-	-	-	-	-	-	9	8	5	3	12	6	43
1895, ...	16	15	3	4	-	-	38	1	1	-	3	5	2	12
1896, ...	18	14	2	3	-	-	37	5	3	2	3	9	9	31
1897, ...	18	15	1	5	1	1	41	2	2	3	1	5	7	20
1898, ...	12	21	3	3	-	1	40	3	1	3	1	6	12	26
1899, ...	7	9	2	2	2	1	23	4	3	2	1	18	13	41
1900, ...	13	21	1	10	-	5	50	2	1	-	1	7	10	21
1901, ...	7	9	1	5	3	4	29	3	3	-	1	5	8	20
1902, ...	14	15	1	3	1	4	38	2	5	2	1	12	12	34
1903, ...	12	8	4	4	1	2	31	5	1	-	4	7	8	25
Total, ...	117	127	18	39	8	18	327	36	28	17	19	115	87	302

Statistics of Cadets.

Cadets admitted during the Year 1903.

Number in the school Jan. 1, 1903:—			
Seamanship class,		41	
Engineer class,		71	
Total,			112
Applications received, 1903,		98	
Failing to appear for examination,	13		
Applicants examined,	85		
Examined,		85	
Failed to pass mental examination,	33		
Failed to pass physical examination,	3		
Failed to pass mental and physical examination,	6		
Passed examinations,	43		
Passed examinations,	43		
Re-examined mentally and passed,	19		
Re-examined physically and passed,	1		
Re-examined mentally and physically and passed,	2		
Readmitted,	2		
Admitted as a post graduate cadet,	1		
	68		
Failed to qualify after passing examinations,	2		
	66		
Total number admitted to school during 1903,			66
Seamanship class,	34		
Engineer class,	32		
Total number connected with the school during 1903,			178

Cadets withdrawn during the Year 1903.

Total number regularly graduated,		31	
Seamanship class,	17		
Engineer class,	14		
Total number granted an honorable discharge,		25	
Seamanship class,	10		
Engineer class,	15		
Total number graduated and honorably discharged,		56	
Dropped from roll,	8		
Withdrawn,	9		
Total number dropped, etc.,		17	
Total withdrawals during 1903,			73
Number of cadets in the school Jan. 1, 1904:—			
Seamanship class,		44	
Engineer class,		61	
Total,			105

Appropriations.

The appropriations for the school for the year 1903, which are here accounted for, were: —

Current Expenses.

Appropriation,		$50,000 00
Extra appropriations,		9,250 00
		$59,250 00
Expended: —		
Pay roll,	$25,807 35	
Provisions,	15,140 56	
Text-books, instruments, etc.,	252 66	
Seamanship department,	3,846 10	
Engineer department,	8,005 16	
Repairs,	5,223 17	
Miscellaneous,	950 71	
Total amount expended,		59,229 71
Balance unexpended,		$20 29

Office Expenses.

Appropriation,		$5,000 00
Expended: —		
Salaries,	$3,434 00	
Books, stationery and postage,	594 61	
Commissioners' expenses,	384 22	
Miscellaneous,	449 20	
Total amount expended,		4,862 03
Balance unexpended,		$137 97

Respectfully submitted,

N. M. DYER, *Chairman*,
Rear Admiral, U. S. N. (Retired),
ROBERT B. DIXON, M.D.,
Hon. JOHN READ, Late U. S. N.,
Board of Commissioners.

Boston, Jan. 2, 1904.

LEGAL AUTHORITY FOR THE SCHOOL.

AUTHORITY OF THE UNITED STATES.

[Chapter 339, June 20, 1874.]

An Act to encourage the Establishment of Public Marine Schools.

That the secretary of the navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of the State, a suitable vessel of the navy, with all her apparel, charts, books and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school or college having a branch established at each or any of the ports of New York, Boston, Philadelphia, Baltimore, Norfolk, San Francisco, Washington, Charleston, Savannah, Mobile, New Orleans, Baton Rouge, Galveston, and in Narragansett Bay (Acts, 1881), upon the condition that there shall be maintained at such port a school, or branch of a school, for the instruction of youths in navigation, seamanship, marine enginery and all matters pertaining to the proper construction, equipment and sailing of vessels, or any particular branch thereof.

And the president of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good of the naval service shall require it, such vessel shall be immediately restored to the secretary of the navy, and the officers so detailed recalled; and *provided, further*, that no person shall be sentenced to or received at such schools as a punishment, or commutation of punishment, for crime.

AUTHORITY OF THE STATE OF MASSACHUSETTS.

[Chapter 402, Acts of 1891.]

An Act to establish a Nautical Training School.

Be it enacted, etc., as follows:

Section 1. The governor with the advice and consent of the council shall appoint, as soon as practicable after the passage of

this act, three citizens of this Commonwealth, who shall constitute a board of commissioners of the Massachusetts nautical training school, and who shall hold office for terms of one, two and three years respectively, from the first day of July in the year eighteen hundred and ninety-one, and until their successors are appointed and qualified; and before the first day in July in each year thereafter one commissioner shall be appointed in like manner, to hold office for the term of three years. Vacancies may be filled for the residue of a term by appointment, and a commissioner may be removed at any time for cause, to be stated in the order of removal. All appointments and removals shall be made by the governor with the advice and consent of the council.

Section 2. Said commissioners shall serve without compensation, but they shall be reimbursed from the treasury of the Commonwealth for all expenses actually incurred by them in the performance of their official duties.

Section 3. Said commissioners shall provide and maintain a nautical training school for the instruction and training of pupils in the science and practice of navigation; shall furnish accommodations for the school on board a proper vessel; shall from time to time purchase and provide such books, stationery, apparatus and supplies as are needed in the work of the school; shall appoint and remove instructors and other necessary employees, and determine their compensation; shall fix the terms and conditions upon which pupils shall be received and instructed in the school, and discharged or dismissed therefrom; and shall establish all rules and regulations necessary for the management of the school. For the purpose of giving the pupils of the school a practical knowledge of navigation and the duties of mariners, said commissioners shall from time to time provide for the making of cruises in or from the harbor of Boston.

Section 4. Said commissioners are authorized to receive from the United States government, and to use for the accommodation of the school, such vessel or vessels as the secretary of the navy may detail for that purpose.

Section 5. In order to properly maintain the said nautical training school, the commissioners may expend a sum not exceeding fifty thousand dollars, which shall be paid from the treasury of the Commonwealth on properly approved vouchers, which shall be approved by the governor and council and presented to the auditor of the Commonwealth for allowance in the same manner as other claims against the Commonwealth: *provided, however*, that no expenditure shall be made or allowed until a vessel suitable for the proposed nautical training school shall have been furnished

by the United States government and turned over to the Commonwealth, and the same approved of and accepted by the gover and council.

SECTION 6. Said commissioners shall annually in the month January make a report to the legislature, presenting a detail statement of all moneys appropriated and expended for the p poses of the nautical training school during the year preceding also stating the results of the work during such year, and mak such recommendations as seem to them proper.

SECTION 7. This act shall take effect upon its passage. [A *proved June 11, 1891.*

VOTE OF EXECUTIVE COUNCIL UPON ACCEPTAN BY THE COMMONWEALTH OF MASSACHUSETT

COMMONWEALTH OF MASSACHUSETTS,
COUNCIL CHAMBER, BOSTON, Nov. 9, 18

The committee on military affairs, to whom was referred the m ter of the approval of the United States ship "Enterprise" for purpose of a nautical training school, submit the following repo

E. V. MITCHELL, *for the Committee*

Chapter 402 of the Acts of the year 1891 provides for the est lishment of a nautical training school in this Commonwealth, section 2 of said act authorizes an expenditure of fifty thous dollars to properly maintain the proposed school, and also provi for the furnishing by the United States government of a suita vessel for such school which shall be turned over to the Comm wealth and accepted by the Governor and Council; and whe the United States having furnished a suitable vessel and the s having been examined by the Executive Council, it is hereby—

Ordered, That the United States ship "Enterprise" be approv and accepted for the proposed nautical training school.

Approved in council, Nov. 9, 1892.

E. F. HAMLIN, *Executive Clerk*

A true copy.

Attest: E. F. HAMLIN, *Executive Clerk.*

MASSACHUSETTS NAUTICAL TRAINING SCHOOL

ESTABLISHMENT.

Under the authority of the above acts, the Secretary of the Navy, on Oct. 28, 1892, turned over to the authorities of the State of Massachusetts the United States steam sloop of war "Enterprise," as a vessel suitable for the purpose.

RECENT LEGISLATION.

[Chapter 171, Acts of 1903.]

An Act relative to the Amount which may annually be expended for the Maintenance of the Massachusetts Nautical Training School.

Be it enacted, etc., as follows:

Section 1. Section five of chapter forty-five of the Revised Laws is hereby amended by striking out the words "not more than fifty thousand dollars," in the first and second lines, and inserting in place thereof the words: — such sum as the general court may from year to year appropriate, — so as to read as follows: — *Section 5.* They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the Commonwealth; and they shall annually submit an estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers, within thirty days after the termination of said cruises.

Section 2. This act shall take effect upon its passage. [*Approved March 23, 1903.*